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Nick Mulcahy is a senior journalist for Medscape Hematology-Oncology. Before joining Medscape, Nick was a freelance medical news writer for 15 years, working for companies such as the International Medical News Group, MedPage Today, HealthDay, McMahon Publishing, and Advanstar. He is also the former managing editor of breastcancer.org. He can be contacted at nmulcahy@medscape.net.

From Medscape Medical News > Oncology Single PSA Test Before Age 50 Predicts Long-Term Risk But How Do We Overcome Fear of Screening?



Nick Mulcahy

May 17, 2011 (Washington, DC) — The long-term risk for prostate cancer can be predicted from a 1-time prostate-specific antigen (PSA) test before 50 years of age, according to a study presented here at the American Urological Association (AUA) 2011 Annual Scientific Meeting.

The study, which comes from a population of more than 20,000 Swedish men, indicates that men with a PSA value above 1.5 ng/mL between the ages of 45 and 49 years account for nearly half of the prostate cancer deaths over the next 30 years or so.

Only 10% of the men in the study had such high PSA values at this relatively young age, noted lead author Andrew Vickers, PhD, from the Department of Epidemiology and Biostatistics at the Memorial Sloan-Kettering Cancer Center in New York City.



**Dr. Andrew
Vickers**

The "take-home message" from the study is that, on the basis of a PSA value obtained in a man's 40s, "you can stratify risk," Dr. Vickers reported at an AUA press briefing.

"This study shows whom we really need to focus on," he added. The young men in this "top 10%" need "aggressive follow-up," such as reminder phone calls for doctors' appointments, and should have either annual or biennial PSA tests, he said.

"We need to make sure that these men really understand that they need to come back," he added.

"Currently, a lot of these men would be told: 'You're fine'," he said.

And they are fine, to a large extent. Their absolute risk of dying from prostate cancer is low, said Dr. Vickers.

However, in the study, which had a median follow-up of 27 years, 44% of all of the prostate cancer deaths occurred in this top 10% of men.

In other words, a small proportion of the men accounted for a lot of the prostate cancer deaths.

A bigger challenge than getting high-risk young men to return to the clinic for close monitoring might be getting such young men to have a PSA test in the first place, suggested Stacy Loeb, MD, from Johns Hopkins University in Baltimore, Maryland, who was not involved in the study but who attended the press briefing.

Young men might be fearful of PSA testing "because of all the negative media attention," she said. "It's important that young men are not fearful."

PSA testing has been in steady decline since 2003/04, when about 50% of all men older than 50 years reported being tested, said William J. Catalona, MD, medical director of the Urological Research Foundation in Chicago, Illinois. Since then, "in every category of men, it's dropping," he said at the press briefing. Dr. Catalona also blamed negative media coverage. "The media doesn't cover anything good about PSA testing," he said.

Less Bold This Time

This study is an outgrowth of ongoing research from the Malmö Preventive Project in Sweden, in which Dr. Vickers and his colleagues participated.

In the new study, the Sloan-Kettering researchers retrospectively analyzed the PSA levels in some of the plasma samples drawn between 1974 and 1986 from an unscreened population-based cohort of more than 20,000 Swedish men between the ages of 33 and 50 years.

Dr. Vickers and colleagues obtained PSA information for 1167 men.

They also reviewed the Swedish Cancer Registry, which allowed for "excellent follow-up" of the men who had been diagnosed with prostate cancer, and identified 241 men who developed prostate cancer metastases and 163 who died from the disease. The latter were determined either by case note review or death certificate. "We know exactly what happened to these guys," said Dr. Vickers.

In 2010, the team conducted a similar study (*BMJ*. 2010;341:c4521), which indicated that a 1-time PSA test at 60 years can help identify men who are more likely to die from prostate cancer. The [story was covered](#) by *Medscape Medical News* at the time. and was awarded a journalism award from the AUA for outstanding news coverage.

In the 2010 study, Dr. Vickers and colleagues found that most of the deaths from prostate cancer were among the 25% or so of men who had, at age 60, PSA levels higher than 2 ng/mL. The study suggested that repeat screening could be confined to that 25% of men whose PSA level is above 2 ng/mL at 60 years of age.

At the time, Dr. Vickers told *Medscape Medical News* that the finding provided "a new way of thinking about the PSA test that offers clear recommendations for clinical practice."

This time around, the researchers have apparently backed off such bold talk.

The new study is "not a practice guideline solution," said senior author Hans Lilja, MD, PhD, also from Sloan Kettering.

Nevertheless, Dr. Vickers suggested that the new data call into question the "typical" recommendations from professional groups about PSA testing because the recommendations do not involve risk stratification.

"All men should consider biennial PSA tests starting at age 50 to age 70," is a typical recommendation, said Dr. Vickers, who then asked if, in light of this research: "Can this still be justified?"

When the 2010 study was published, Dr. Vickers said that risk-stratifying screening had 2 major benefits: it will reduce overdiagnosis in men at low risk for prostate cancer death and it will improve compliance with screening in men who will benefit the most.

The Sloan-Kettering researchers have yielded a lot of research from the Malmö cohort. At the 2007 AUA annual meeting, they reported that a single PSA measurement obtained when a man is in his 40s strongly predicts his risk for advanced-stage prostate cancer later in life, [as reported](#) by *Medscape Medical News* at the time.

The study was funded by grants from the National Cancer Institute, the Swedish Cancer Society, the Swedish Research Council, and several other foundations. Dr. Lilja reports holding a patent for free PSA and hK2 assays.



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